

**REMARKS**

Applicants respectfully request reconsideration and reexamination of the present application in light of the amendments and the remarks below.

Claims 1-10 are pending in this application. Applicants elected the combination of imidacloprid and permethrin for further prosecution (Paper No. 6).

Claims 1 and 6-10 have been amended. These claim amendments are made to clarify the subject matter therein. Therefore, these amendments are submitted in order to place the claims in condition for allowance, and do not disclaim any subject matter to which the Applicants are entitled.

***Rejection Under 35 U.S.C. § 112, second paragraph***

The Examiner rejected claims 1 and 3-10 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention (Paper No. 7, pages 2-3). Applicants respectfully traverse this rejection.

The Examiner stated that:

Claims 1 and 3-10 are indefinite in failing to set forth all relative proportions for all ingredients. Claims 9 and 10 are indefinite in failing to set forth how much active composition is employed. The insertion of functional language such as "synergistic effective amounts of" in the claims would overcome the above rejections.

Claim 1 (claims 2-5 dependent therefrom) has been amended as suggested by the Examiner. In addition, claims 6-10 have been amended accordingly.

It is thus submitted that claims 1, and claims 2-5 as depending from claim 1, and 3-10 meet the requirements of 35 USC § 112, second paragraph, and reconsideration and withdrawal of the present rejection is respectfully requested.

***Rejection Under 35 U.S.C. § 103(a)***

The Examiner rejected claims 1-10 under U.S.C. § 103(a) as unpatentable over Sirinyan et al. (Paper No. 7, pages 3-4). Applicants respectfully traverse.

The Examiner stated that:

The Sirinyan et al. reference teaches that the claim designated imidacloprid compound is an old insecticide which may be combined with permethrin to control the same type of insects. See column 4, line 36; column 8, lines 1-15; and column 9, lines 1 and 2. The above reference fail to teach specific examples of the old insecticides together. However, one skilled in the art would find ample motivation from the prior art supra to combine the well known insecticides together, of known properties where the results obtained thereby are no more than the additive effects of the ingredients; particularly since the above prior art

teaches the combination of known insecticides. *In re Sussman*, 1934 CD 518. The data in the specification is noted, but does not show unexpected and/or unobvious results for all the insects and for all the broad ranges claimed.

To properly maintain a rejection under 35 U.S.C. § 103, three conditions must be met. First, the prior art must have suggested to those of ordinary skill in the art that they should make the claimed composition or device or carry out the claimed process. Second, the prior art must also have revealed that in so making or carrying out, those of ordinary skill in the art would have a reasonable expectation of success. Both the suggestion and the reasonable expectation of success must be adequately founded in the prior art and not in the Applicant's disclosure. Finally, the prior art reference must teach or suggest all the claim limitations. See *In re Vaeck*, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

The present invention relates to compositions and methods for controlling parasitic insects and acarids comprising a combination of a pyrethroid and a nicotiny compound.

Sirinyan et al., does not teach or suggest the compositions or methods of the present invention and the requisite reasonable expectation of success is absent. That is, Sirinyan et al., discloses the use of agonists or antagonists of nicotinic acetylcholine receptors as a means for dermal control of parasitic insects such as fleas or lice. However, Sirinyan et al., does not teach or suggest that the combination of a pyrethroid and a nicotiny compound would be effective for controlling parasitic insects and acarids. Thus, the reference does not teach or suggest every element of the claimed invention, and therefore, does not support a rejection of the claims under U.S.C. § 103(a).

Furthermore, one skilled in the art would not be motivated based on the prior art to combine a pyrethroid and a nicotiny compound with the requisite reasonable expectation of success. Sirinyan et al., does not teach or suggest that the combination of a pyrethroid and a nicotiny compound would be effective for controlling parasitic insects and acarids, and as such, one skilled in the art would not have been motivated to use the combination of a pyrethroid and a nicotiny compound based on the disclosure of the reference with the expectation of controlling parasitic insects and acarids. That is, it was not known whether the addition of a pyrethroid to a nicotiny compound would adversely affect the insecticide activity of the nicotiny compound. Surprisingly, in fact, the combination of a pyrethroid and a nicotiny compound demonstrated enhanced acaricidal activity as well as maintaining the activity of the nicotiny compound against fleas. For example, as illustrated in Table 2 on page 17 of the specification, the combination of a pyrethroid and a nicotiny compound exhibited enhanced activity against acarids (*D. variabilis*) as compared to administration of either a pyrethroid or a nicotiny compound alone. This effect is most notable during Days 1-3 of administration of the combination. Thus, the combination provided a faster kill of acarids as compared to administration of a pyrethroid or a nicotiny compound alone. Furthermore, the duration of this activity of the combination was prolonged as compared to the

single administration of a pyrethroid or a nicotinyl compound. Therefore, the combination of a pyrethroid and a nicotinyl compound does exhibit unexpected and unobvious results because a nicotinyl compound has no appreciable activity against acarids, yet the combination of a pyrethroid and a nicotinyl compound produces a substantially enhanced and prolonged activity against acarids. Moreover, the activity of the nicotinyl compound against fleas is not compromised by the combination of a pyrethroid with a nicotinyl compound. Therefore, it would not have been obvious to one skilled in the art, based on the disclosure by Sirinyan et al., to combine a pyrethroid and a nicotinyl compound with the expectation of producing enhanced and prolonged activity against acarids.

It is therefore respectfully submitted that Sirinyan et al., fail to teach or suggest the compositions or methods as presently claimed, and that the current invention is novel and nonobvious in view of the prior art references. For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the present rejection.

### CONCLUSION


For the foregoing reasons, Applicants submit that the claims are in condition for allowance and Applicants respectfully request reexamination of the present application, reconsideration and withdrawal of the present rejections, and entry of the amendments. Should there be any further matter requiring consideration, Examiner Robinson is invited to contact the undersigned counsel.

If there are any further fees due in connection with the filing of the present reply, please charge the fees to undersigned's Deposit Account No. 13-3372. If a fee is required for an extension of time not accounted for, such an extension is requested and the fee should also be charged to undersigned's deposit account.

Respectfully submitted,

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